Journal of Nuclear Materials 168 (1989) 353–355
North-Holland, Amsterdam

AUTHOR INDEX

Abe, M., see Tsuji 168 (1989) 151
Amalric, A., see Balart 168 (1989) 346
Anderson, J.L., see Souers 168 (1989) 1
Arai, Y., T. Ohmichi, S. Fukushima and M. Handa, Thermal conductivity of near-stoichiometric (U, Pu, Zr)C solid solutions 168 (1989) 137
Arai, Y., S. Fukushima, K. Shiozawa and M. Handa, Fabrication of (U, Pu)N fuel pellets 168 (1989) 280
Attalla, A., see Souers 168 (1989) 1

Balart, S., R. Tendler, A. Amalric, F. Carbone and F. Gaioli, Diffusion of ^{103}Ru in zirconium (Letter to the Editors) 168 (1989) 346
Bevz, A.S., see Teske 168 (1989) 97
Bhaskar Rao, P., see Joseph 168 (1989) 220
Birtcher. R.C., see Rest 168 (1989) 312
Boothby, R.M., The stress-induced instability of grain boundary helium bubbles (Letter to the Editors) 168 (1989) 343
Bowman, Jr., R.C., see Souers 168 (1989) 1

Carbone, F., see Balart 168 (1989) 346
Collier, I.T., R.N. Hampton, G.A. Saunders and A.M. Stoneham, Electrical conductivity of polycrystalline uranium dioxide 168 (1989) 268
Cordfunke, E.H.P., see Wyers 168 (1989) 24

Dayal, R.K., see Parvathavarthini 168 (1989) 83
Diano, P., A. Muggeo, J.C. Van Duysen and M. Guttmann, Relationship between microstructure and mechanical properties of Alloy 690 tubes for steam generators 168 (1989) 290
Dippel, K.H., W. Kohlhaas, C. Stickelmann and E. Wallura, Cleaning of metal-contaminated graphite tiles of the TEXTOR ALT-II pump limiter blades 168 (1989) 58
Duclos, A.M., see Taylor 168 (1989) 70

Erck, R.A. and L.E. Rehn, Kinetics of radiation-induced segregation in molydenum–rhenium alloys 168 (1989) 208
Evans, J.H. and A. van Veen, An electron microscope study of helium bubble diffusion in gold 168 (1989) 12
Evans, J.H., A. van Veen and M.W. Finnis, Observations and theory of thermally-induced helium bubble shrinkage in gold 168 (1989) 19
Evans, J.H., A.J.E. Foreman and R.J. McElroy, Anisotropic diffusion of self-interstitials in zirconium (Letter to the Editors) 168 (1989) 340

Farrell, K., see Schober 168 (1989) 171
Farrell, K., see Zinkle 168 (1989) 262
Finnis, M.W., see Evans 168 (1989) 19
Folkers, C.L., see Souers 168 (1989) 1
Foreman, A.J.E., see Evans 168 (1989) 340
Fukuda, K., see Hayashi 168 (1989) 328
Fukushima, S., see Arai 168 (1989) 137
Fukushima, S., see Arai 168 (1989) 280

Gaioli, F., see Balart 168 (1989) 346
Garner, F.A., see Muroga 168 (1989) 109
Gervasini, G. and F. Reiter, Tritium inventory and permeation in separately cooled liquid breeder blankets 168 (1989) 304
Gnanamoorthy, J.B., see Parvathavarthini 168 (1989) 83
Gnanamoorthy, J.B., see Khatak 168 (1989) 157
Gohar, I.A., see My 168 (1989) 76
Guttmann, M., see Diano 168 (1989) 290

Hampton, R.N., see Collier 168 (1989) 268
Handa, M., see Arai 168 (1989) 137
Handa, M., see Arai 168 (1989) 280
Hanks, W., see Mazey 168 (1989) 228
Hayashi, K. and K. Fukuda, Diffusion coefficients of cesium in un-irradiated graphite and comparison with those obtained from in-pile experiments 168 (1989) 328
Hofmann, P., see Uetsuka 168 (1989) 47

Iseki, T., see Sasaki 168 (1989) 349

Joseph, M., C.K. Mathews and P. Bhaskar Rao, Studies on the equation of state of mixed carbide fuel 168 (1989) 220

Kaimal, K.N.G., M.C. Naik and A.R. Paul, Temperature dependence of diffusivity of xenon in high dose irradiated UO_2 (Letter to the Editors) 168 (1989) 188
Kapshukov, I.I., see Teske 168 (1989) 97
Karatas, C., Cation distribution and non-stoichiometry in $MnCr_2O_4$–$NiCr_2O_4$ spinel solid solutions at 1300°C 168 (1989) 144

Karpov, D.A., G.L. Saksagansky, F. Pászti, E. Szilágyi and A. Manuaba, Model experiments to study the first wall erosion by vacuum arcs 168 (1989) 43
Khatak, H.S., P. Muraleedharan, J.B. Gnanamoorthy, P. Rodriguez and K.A. Padmanabhan, Evaluation of the stress corrosion resistance of cold rolled AISI Type 316 stainless steel using constant load and slow strain rate tests 168 (1989) 157
Kohlhaas, W., see Dippel 168 (1989) 58
Kótai, E., see My 168 (1989) 76
Kuroda, T., see Shen 168 (1989) 295

Lewis, W.B., see Souers 168 (1989) 1

Manahan, Sr., M.P., Mechanical behavior and swelling of tube scale from a pressurized water reactor steam generator using miniature specimens 168 (1989) 178
Manuaba, A., see Karpov 168 (1989) 43
Manuaba, A., see My 168 (1989) 76
Maruyama, T., see Sasaki 168 (1989) 349
Mathews, C.K., see Joseph 168 (1989) 220
Matsui, T., see Tsuji 168 (1989) 151
Mazey, D.J., W. Hanks and T.M. Williams, Microstructural studies of nitrided FV448 and FI ferritic steels ion-irradiated to 100 dpa in the Harwell VEC 168 (1989) 228
McCarthy, J.M., see Muroga 168 (1989) 109
McCreary, T., see Souers 168 (1989) 1
McElroy, R.J., see Evans 168 (1989) 340
Meng, X. and D.O. Northwood, Second phase particles in Zircaloy-2 168 (1989) 125
Mezey, G., see My 168 (1989) 76
Miyake, M., see Shen 168 (1989) 295
Muggeo, A., see Diano 168 (1989) 290
Muraleedharan, P., see Khatak 168 (1989) 157
Muroga, T., F.A. Garner and J.M. McCarthy, The effect of phosphorus on microstructures of Fe–15Cr–25Ni alloys irradiated with fast neutrons 168 (1989) 109
Murphy, S.M., A model for segregation in dilute alloys during irradiation 168 (1989) 31
My, N.T., F. Pászti, A. Manuaba, G. Mezey, E. Kótai and I.A. Gohar, Blistering and trapping characteristics of aluminum during Ar ion implantation and post-irradiation annealing 168 (1989) 76

Nagai, S., see Oshiyama 168 (1989) 162
Naik, M.C., see Kaimal 168 (1989) 188
Naito, K., see Tsuji 168 (1989) 151
Nakajima, H., see Tsuji 168 (1989) 201
Nakamura, K., see Tanabe 168 (1989) 191
Nasise, J.E., see Souers 168 (1989) 1
Nebelung, C., see Teske 168 (1989) 97
Niwase, K., see Tanabe 168 (1989) 191
Northwood, D.O., see Meng 168 (1989) 125

Ohmichi, T., see Arai 168 (1989) 137
Okuda, T., see Shen 168 (1989) 295
Olsen, C.E., The orientation relationship between delta-phase plutonium and alpha-phase plutonium 168 (1989) 326
Oshiyama, T., S. Nagai and K. Ozawa, Role of reflection and sputtering in ion impact desorption of gases from solid surfaces 168 (1989) 162
Owen, D.G., see Taylor 168 (1989) 70
Ozawa, K., see Oshiyama 168 (1989) 162

Padmanabhan, K.A., see Khatak 168 (1989) 157
Parvathavarthini, N., R.K. Dayal, S.K. Seshadri and J.B. Gnanamoorthy, Continuous cooling and low temperature sensitization of AISI Types 316 SS and 304 SS with different degrees of cold work 168 (1989) 83
Pászti, F., see Karpov 168 (1989) 43
Pászti, F., see My 168 (1989) 76
Paul, A.R., see Kaimal 168 (1989) 188
Peisl, J., see Rauch 168 (1989) 101
Pretzel, F.E., see Souers 168 (1989) 1

Rauch, R., J. Peisl, A. Schmalzbauer and G. Wallner, Correlation of interstitials within defect cascades in Al(Zn) and Cu observed by diffuse X-ray scattering 168 (1989) 101
Rehn, L.E., see Erck 168 (1989) 208
Reiter, F., see Gervasini 168 (1989) 304
Rest, J., Validation of mechanistic models for gas precipitation in solids during post-irradiation annealing experiments 168 (1989) 243
Rest, J. and R.C. Birtcher, Precipitation kinetics of rare gases implanted into metals 168 (1989) 312
Rodriguez, P., see Khatak 168 (1989) 157
Ronchi, C., see Syros 168 (1989) 65

Sakellaridis, J., see Syros 168 (1989) 65
Saksagansky, G.L., see Karpov 168 (1989) 43
Sasaki, K., T. Maruyama and T. Iseki, Helium release from neutron-irradiated SiC containing ^{10}B isotope (Letter to the Editors) 168 (1989) 349
Saunders, G.A., see Collier 168 (1989) 268
Scherzer, B.M.U., On the dynamic inventory of deuterium implanted in graphite 168 (1989) 121
Schmalzbauer, A., see Rauch 168 (1989) 101
Schober, T. and K. Farrell, Helium bubbles in α-Ti and Ti tritide arising from tritium decay: A TEM study 168 (1989) 171
Seshadri, S.K., see Parvathavarthini 168 (1989) 83
Shen, Y., M. Miyake, S. Takamura, T. Kuroda

and T. Okuda, Ergodic magnetic limiter experiments in the HYBTOK-II tokamak 168 (1989) 295
Shepherd, C.M. and T.M. Williams, Intragranular compositional oscillations in neutron-irradiated austenitic steels (Letter to the Editors) 168 (1989) 337
Shiozawa, K., see Arai 168 (1989) 280
Snider, G.D., see Souers 168 (1989) 1
Souers, P.C., C.L. Folkers, T. McCreary, G.D. Snider, F. Vanderhoofven, R.T. Tsugawa, J.L. Anderson, W.B. Lewis, J.E. Nasise, F.E. Pretzel, E.G. Szklarz, D.T. Vier, A. Attalla and R.C. Bowman, Jr., Swelling and outgassing of tritiated lithium hydride compacts 168 (1989) 1
Stickelmann, C., see Dippel 168 (1989) 58
Stoneham, A.M., see Collier 168 (1989) 268
Sudakov, L.V., see Teske 168 (1989) 97
Syros, C., J. Sakellaridis and C. Ronchi, Analytical solution of the radioactive volatile fission product release equation in the presence of precipitation and re-solution 168 (1989) 65
Szilágyi, E., see Karpov 168 (1989) 43
Szklarz, E.G., see Souers 168 (1989) 1

Takamura, S., see Shen 168 (1989) 295
Tanabe, T., K. Niwase and K. Nakamura, On the radiation damage of graphite – An estimation of changes in graphite properties from modification of chemical bonding nature given by energetic particle bombardment (Letter to the Editors) 168 (1989) 191
Taylor, P., D.D. Wood, A.M. Duclos and D.G. Owen, Formation of uranium trioxide hydrates on UO_2 fuel in air–steam mixtures near 200°C 168 (1989) 70
Tendler, R., see Balart 168 (1989) 346
Teske, K., C. Nebelung, I.I. Kapshukov, L.V. Sudakov and A.S. Bevz, Determination of the oxygen coefficient for hyperstoichiometric uranium–plutonium mixed oxide by a solid-electrolyte-based coulometric technique 168 (1989) 97
Tsugawa, R.T., see Souers 168 (1989) 1
Tsuji, H., T. Tsukada and H. Nakajima, An attempt to improve corrosion and fatigue resistance of Ni–Cr–W superalloys in HTGR helium 168 (1989) 201
Tsuji, T., T. Matsui, M. Abe and K. Naito, Oxygen potential, electrical conductivity and defect structure of titanium-doped uranium dioxide 168 (1989) 151
Tsukada, T., see Tsuji 168 (1989) 201

Uetsuka, H. and P. Hofmann, High-temperatue oxidation kinetics of Zircaloy-4 in oxygen/argon mixtures 168 (1989) 47

Van Duysen, J.C., see Diano 168 (1989) 290
Van Veen, A., see Evans 168 (1989) 12
Van Veen, A., see Evans 168 (1989) 19
Vanderhoofven, F., see Souers 168 (1989) 1
Vier, D.T., see Souers 168 (1989) 1

Wallner, G., see Rauch 168 (1989) 101
Wallura, E., see Dippel 168 (1989) 58
Williams, T.M., see Mazey 168 (1989) 228
Williams, T.M., see Shepherd 168 (1989) 337
Wood, D.D., see Taylor 168 (1989) 70
Wyers, G.P. and E.H.P. Cordfunke, Phase relations in the system Li_2O–ZrO_2 168 (1989) 24

Zinkle, S.J. and K. Farrell, Void swelling and defect cluster formation in reactor-irradiated copper 168 (1989) 262

Journal of Nuclear Materials 168 (1989) 357–362
North-Holland, Amsterdam

SUBJECT INDEX

Alloys *("Various" i.e. not listed elsewhere by name)*
A model for segregation in dilute alloys during irradiation, S.M. Murphy 168 (1989) 31
Precipitation kinetics of rare gases implanted into metals, J. Rest and R.C. Birtcher 168 (1989) 312

Aluminium, Aluminium Alloys and Compounds
Blistering and trapping characteristics of aluminum during Ar ion implantation and post-irradiation annealing, N.T. My, F. Pászti, A. Manuaba, G. Mezey, E. Kótai and I.A. Gohar 168 (1989) 76
Correlation of interstitials within defect cascades in Al(Zn) and Cu observed by diffuse X-ray scattering, R. Rauch, J. Peisl, A. Schmalzbauer and G. Wallner 168 (1989) 101

Ceramics *("Various" i.e. not listed elsewhere by name)*
Helium release from neutron-irradiated SiC containing ^{10}B isotope (Letter to the Editors), K. Sasaki, T. Maruyama and T. Iseki 168 (1989) 349

Cladding Materials
Cation distribution and non-stoichiometry in $MnCr_2O_4$–$NiCr_2O_4$ spinel solid solutions at 1300°C, C. Karatas 168 (1989) 144

Compatibility and Corrosion
High-temperatue oxidation kinetics of Zircaloy-4 in oxygen/argon mixtures, H. Uetsuka and P. Hofmann 168 (1989) 47
Formation of uranium trioxide hydrates on UO_2 fuel in air–steam mixtures near 200°C, P. Taylor, D.D. Wood, A.M. Duclos and D.G. Owen 168 (1989) 70
Cation distribution and non-stoichiometry in $MnCr_2O_4$–$NiCr_2O_4$ spinel solid solutions at 1300°C, C. Karatas 168 (1989) 144
Evaluation of the stress corrosion resistance of cold rolled AISI Type 316 stainless steel using constant load and slow strain rate tests, H.S. Khatak, P. Muraleedharan, J.B. Gnanamoorthy, P. Rodriguez and K.A. Padmanabhan 168 (1989) 157
Mechanical behavior and swelling of tube scale from a pressurized water reactor steam generator using miniature specimens, M.P. Manahan, Sr. 168 (1989) 178
An attempt to improve corrosion and fatigue resistance of Ni–Cr–W superalloys in HTGR helium, H. Tsuji, T. Tsukada and H. Nakajima 168 (1989) 201

Computer Calculations, including Modelling
Analytical solution of the radioactive volatile fission product release equation in the presence of precipitation and re-solution, C. Syros, J. Sakellaridis and C. Ronchi 168 (1989) 65
Cation distribution and non-stoichiometry in $MnCr_2O_4$–$NiCr_2O_4$ spinel solid solutions at 1300°C, C. Karatas 168 (1989) 144
Validation of mechanistic models for gas precipitation in solids during postirradiation annealing experiments, J. Rest 168 (1989) 243
Tritium inventory and permeation in separately cooled liquid breeder blankets, G. Gervasini and F. Reiter 168 (1989) 304

Crystallographic Properties
The orientation relationship between delta-phase plutonium and alpha-phase plutonium, C.E. Olsen 168 (1989) 326

Defects and Defect Structures
Correlation of interstitials within defect cascades in Al(Zn) and Cu observed by diffuse X-ray scattering, R. Rauch, J. Peisl, A. Schmalzbauer and G. Wallner 168 (1989) 101
Oxygen potential, electrical conductivity and defect structure of titanium-doped uranium dioxide, T. Tsuji, T. Matsui, M. Abe and K. Naito 168 (1989) 151
Void swelling and defect cluster formation in reactor-irradiated copper, S.J. Zinkle and K. Farrell 168 (1989) 262

Diffusion *(incl. Thermodiffusion)*
Observations and theory of thermally-induced helium bubble shrinkage in gold, J.H. Evans, A. van Veen and M.W. Finnis 168 (1989) 19
Temperature dependence of diffusivity of xenon in high dose irradiated UO_2 (Letter to the Editors), K.N.G. Kaimal, M.C. Naik and A.R. Paul 168 (1989) 188
Tritium inventory and permeation in separately cooled liquid breeder blankets, G. Gervasini and F. Reiter 168 (1989) 304

Diffusion coefficients of cesium in un-irradiated graphite and comparison with those obtained from in-pile experiments, K. Hayashi and K. Fukuda 168 (1989) 328
Diffusion of ^{103}Ru in zirconium (Letter to the Editors), S. Balart, R. Tendler, A. Amalric, F. Carbone and F. Gaioli 168 (1989) 346

Electron Microscopy and Electron Probe Microanalysis
The effect of phosphorus on microstructures of Fe–15Cr–25Ni alloys irradiated with fast neutrons, T. Muroga, F.A. Garner and J.M. McCarthy 168 (1989) 109
Second phase particles in Zircaloy-2, X. Meng and D.O. Northwood 168 (1989) 125

Experimental Techniques
Mechanical behavior and swelling of tube scale from a pressurized water reactor steam generator using miniature specimens, M.P. Manahan, Sr. 168 (1989) 178

Fatigue and Fracture
An attempt to improve corrosion and fatigue resistance of Ni–Cr–W superalloys in HTGR helium, H. Tsuji, T. Tsukada and H. Nakajima 168 (1989) 201

Fission Products
Analytical solution of the radioactive volatile fission product release equation in the presence of precipitation and re-solution, C. Syros, J. Sakellaridis and C. Ronchi 168 (1989) 65

Fuels and Fuel Elements: Fast Reactors
Analytical solution of the radioactive volatile fission product release equation in the presence of precipitation and re-solution, C. Syros, J. Sakellaridis and C. Ronchi 168 (1989) 65
Studies on the equation of state of mixed carbide fuel, M. Joseph, C.K. Mathews and P. Bhaskar Rao 168 (1989) 220
Fabrication of (U, Pu)N fuel pellets, Y. Arai, S. Fukushima, K. Shiozawa and M. Handa 168 (1989) 280

Fuels and Fuel Elements: High-Temperature Reactors
An attempt to improve corrosion and fatigue resistance of Ni–Cr–W superalloys in HTGR helium, H. Tsuji, T. Tsukada and H. Nakajima 168 (1989) 201

Fuel and Fuel Elements: Thermal Reactors
High-temperatue oxidation kinetics of Zircaloy-4 in oxygen/argon mixtures, H. Uetsuka and P. Hofmann 168 (1989) 47
Analytical solution of the radioactive volatile fission product release equation in the presence of precipitation and re-solution, C. Syros, J. Sakellaridis and C. Ronchi 168 (1989) 65
Determination of the oxygen coefficient for hyperstoichiometric uranium–plutonium mixed oxide by a solid-electrolyte-based coulometric technique, K. Teske, C. Nebelung, I.I. Kapshukov, L.V. Sudakov and A.S. Bevz 168 (1989) 97

Fusion Reactors: Blanket Materials *(incl. Lithium)*
Swelling and outgassing of tritiated lithium hydride compacts, P.C. Souers, C.L. Folkers, T. McCreary, G.D. Snider, F. Vanderhoofven, R.T. Tsugawa, J.L. Anderson, W.B. Lewis, J.E. Nasise, F.E. Pretzel, E.G. Szklarz, D.T. Vier, A. Attalla and R.C. Bowman, Jr. 168 (1989) 1
Phase relations in the system Li_2O–ZrO_2, G.P. Wyers and E.H.P. Cordfunke 168 (1989) 24
Tritium inventory and permeation in separately cooled liquid breeder blankets, G. Gervasini and F. Reiter 168 (1989) 304

Fusion Reactors: Impurity Transport in Plasma
Ergodic magnetic limiter experiments in the HYBTOK-II tokamak, Y. Shen, M. Miyake, S. Takamura, T. Kuroda and T. Okuda 168 (1989) 295

Fusion Reactors: Surface Effects
Model experiments to study the first wall erosion by vacuum arcs, D.A. Karpov, G.L. Saksaganskiy, F. Pászti, E. Szilágyi and A. Manuaba 168 (1989) 43
Cleaning of metal-contaminated graphite tiles of the TEXTOR ALT-II pump limiter blades, K.H. Dippel, W. Kohlhaas, C. Stickelmann and E. Wallura 168 (1989) 58
Blistering and trapping characteristics of aluminum during Ar ion implantation and post-irradiation annealing, N.T. My, F. Pászti, A. Manuaba, G. Mezey, E. Kótai and I.A. Gohar 168 (1989) 76
On the dynamic inventory of deuterium implanted in graphite, B.M.U. Scherzer 168 (1989) 121
Ergodic magnetic limiter experiments in the HYBTOK-II tokamak, Y. Shen, M. Miyake, S. Takamura, T. Kuroda and T. Okuda 168 (1989) 295

Gases *(excl. Tritium)* **in Metals, Alloys and Ceramics**
Swelling and outgassing of tritiated lithium hydride compacts, P.C. Souers, C.L. Folkers, T. McCreary, G.D. Snider, F. Vanderhoofven, R.T. Tsugawa, J.L. Anderson, W.B. Lewis, J.E. Nasise, F.E. Pretzel, E.G. Szklarz, D.T. Vier, A. Attalla and R.C. Bowman, Jr. 168 (1989) 1

An electron microscope study of helium bubble diffusion in gold, J.H. Evans and A. van Veen 168 (1989) 12
Observations and theory of thermally-induced helium bubble shrinkage in gold, J.H. Evans, A. van Veen and M.W. Finnis 168 (1989) 19
Role of reflection and sputtering in ion impact desorption of gases from solid surfaces, T. Oshiyama, S. Nagai and K. Ozawa 168 (1989) 162
Helium bubbles in α-Ti and Ti tritide arising from tritium decay: A TEM study, T. Schober and K. Farrell 168 (1989) 171
Validation of mechanistic models for gas precipitation in solids during postirradiation annealing experiments, J. Rest 168 (1989) 243
Precipitation kinetics of rare gases implanted into metals, J. Rest and R.C. Birtcher 168 (1989) 312
The stress-induced instability of grain boundary helium bubbles (Letter to the Editors), R.M. Boothby 168 (1989) 343
Helium release from neutron-irradiated SiC containing ^{10}B isotope (Letter to the Editors), K. Sasaki, T. Maruyama and T. Iseki 168 (1989) 349

Grain Boundary
The stress-induced instability of grain boundary helium bubbles (Letter to the Editors), R.M. Boothby 168 (1989) 343

Graphite and Carbon
Cleaning of metal-contaminated graphite tiles of the TEXTOR ALT-II pump limiter blades, K.H. Dippel, W. Kohlhaas, C. Stickelmann and E. Wallura 168 (1989) 58
On the dynamic inventory of deuterium implanted in graphite, B.M.U. Scherzer 168 (1989) 121
On the radiation damage of graphite – An estimation of changes in graphite properties from modification of chemical bonding nature given by energetic particle bombardment (Letter to the Editors), T. Tanabe, K. Niwase and K. Nakamura 168 (1989) 191
Diffusion coefficients of cesium in un-irradiated graphite and comparison with those obtained from in-pile experiments, K. Hayashi and K. Fukuda 168 (1989) 328

Hydrogen and Hydrides
On the dynamic inventory of deuterium implanted in graphite, B.M.U. Scherzer 168 (1989) 121

Impurities
Cleaning of metal-contaminated graphite tiles of the TEXTOR ALT-II pump limiter blades, K.H. Dippel, W. Kohlhaas, C. Stickelmann and E. Wallura 168 (1989) 58

Irradiation Effects *(excl. Swelling and Voids)*
A model for segregation in dilute alloys during irradiation, S.M. Murphy 168 (1989) 31
Blistering and trapping characteristics of aluminum during Ar ion implantation and post-irradiation annealing, N.T. My, F. Pászti, A. Manuaba, G. Mezey, E. Kótai and I.A. Gohar 168 (1989) 76
Correlation of interstitials within defect cascades in Al(Zn) and Cu observed by diffuse X-ray scattering, R. Rauch, J. Peisl, A. Schmalzbauer and G. Wallner 168 (1989) 101
Role of reflection and sputtering in ion impact desorption of gases from solid surfaces, T. Oshiyama, S. Nagai and K. Ozawa 168 (1989) 162
On the radiation damage of graphite – An estimation of changes in graphite properties from modification of chemical bonding nature given by energetic particle bombardment (Letter to the Editors), T. Tanabe, K. Niwase and K. Nakamura 168 (1989) 191
Kinetics of radiation-induced segregation in molydenum–rhenium alloys, R.A. Erck and L.E. Rehn 168 (1989) 208
Validation of mechanistic models for gas precipitation in solids during postirradiation annealing experiments, J. Rest 168 (1989) 243
Void swelling and defect cluster formation in reactor-irradiated copper, S.J. Zinkle and K. Farrell 168 (1989) 262
Precipitation kinetics of rare gases implanted into metals, J. Rest and R.C. Birtcher 168 (1989) 312
Diffusion coefficients of cesium in un-irradiated graphite and comparison with those obtained from in-pile experiments, K. Hayashi and K. Fukuda 168 (1989) 328
Intragranular compositional oscillations in neutron-irradiated austenitic steels (Letter to the Editors), C.M. Shepherd and T.M. Williams 168 (1989) 337
Anisotropic diffusion of self-interstitials in zirconium (Letter to the Editors), J.H. Evans, A.J.E. Foreman and R.J. McElroy 168 (1989) 340
Helium release from neutron-irradiated SiC containing ^{10}B isotope (Letter to the Editors), K. Sasaki, T. Maruyama and T. Iseki 168 (1989) 349

Kinetics
High-temperatue oxidation kinetics of Zircaloy-4 in oxygen/argon mixtures, H. Uetsuka and P. Hofmann 168 (1989) 47
Kinetics of radiation-induced segregation in molydenum–rhenium alloys, R.A. Erck and L.E. Rehn 168 (1989) 208

Precipitation kinetics of rare gases implanted into metals, J. Rest and R.C. Birtcher 168 (1989) 312

Mechanical Properties
Mechanical behavior and swelling of tube scale from a pressurized water reactor steam generator using miniature specimens, M.P. Manahan, Sr. 168 (1989) 178
Relationship between microstructure and mechanical properties of Alloy 690 tubes for steam generators, P. Diano, A. Muggeo, J.C. Van Duysen and M. Guttmann 168 (1989) 290

Microstructure *(incl. Textures)*
Kinetics of radiation-induced segregation in molydenum–rhenium alloys, R.A. Erck and L.E. Rehn 168 (1989) 208

Phase Transformations
Phase relations in the system Li_2O–ZrO_2, G.P. Wyers and E.H.P. Cordfunke 168 (1989) 24
Continuous cooling and low temperature sensitization of AISI Types 316 SS and 304 SS with different degrees of cold work, N. Parvathavarthini, R.K. Dayal, S.K. Seshadri and J.B. Gnanamoorthy 168 (1989) 83
Second phase particles in Zircaloy-2, X. Meng and D.O. Northwood 168 (1989) 125

Physical Properties
Oxygen potential, electrical conductivity and defect structure of titanium-doped uranium dioxide, T. Tsuji, T. Matsui, M. Abe and K. Naito 168 (1989) 151
On the radiation damage of graphite – An estimation of changes in graphite properties from modification of chemical bonding nature given by energetic particle bombardment (Letter to the Editors), T. Tanabe, K. Niwase and K. Nakamura 168 (1989) 191
Electrical conductivity of polycrystalline uranium dioxide, I.T. Collier, R.N. Hampton, G.A. Saunders and A.M. Stoneham 168 (1989) 268

Plutonium, Plutonium Alloys and Compounds
Determination of the oxygen coefficient for hyperstoichiometric uranium–plutonium mixed oxide by a solid-electrolyte-based coulometric technique, K. Teske, C. Nebelung, I.I. Kapshukov, L.V. Sudakov and A.S. Bevz 168 (1989) 97
Thermal conductivity of near-stoichiometric (U, Pu, Zr)C solid solutions, Y. Arai, T. Ohmichi, S. Fukushima and M. Handa 168 (1989) 137
Studies on the equation of state of mixed carbide fuel, M. Joseph, C.K. Mathews and P. Bhaskar Rao 168 (1989) 220
Fabrication of (U, Pu)N fuel pellets, Y. Arai, S. Fukushima, K. Shiozawa and M. Handa 168 (1989) 280
The orientation relationship between delta-phase plutonium and alpha-phase plutonium, C.E. Olsen 168 (1989) 326

Powder Processes and Products
Fabrication of (U, Pu)N fuel pellets, Y. Arai, S. Fukushima, K. Shiozawa and M. Handa 168 (1989) 280

Refractory Metals and Alloys *(excl. Zr)*
Model experiments to study the first wall erosion by vacuum arcs, D.A. Karpov, G.L. Saksagansky, F. Pászti, E. Szilágyi and A. Manuaba 168 (1989) 43
Role of reflection and sputtering in ion impact desorption of gases from solid surfaces, T. Oshiyama, S. Nagai and K. Ozawa 168 (1989) 162
Helium bubbles in α-Ti and Ti tritide arising from tritium decay: A TEM study, T. Schober and K. Farrell 168 (1989) 171
Kinetics of radiation-induced segregation in molydenum–rhenium alloys, R.A. Erck and L.E. Rehn 168 (1989) 208

Safety – Nuclear Reactors
Studies on the equation of state of mixed carbide fuel, M. Joseph, C.K. Mathews and P. Bhaskar Rao 168 (1989) 220

Steels
Continuous cooling and low temperature sensitization of AISI Types 316 SS and 304 SS with different degrees of cold work, N. Parvathavarthini, R.K. Dayal, S.K. Seshadri and J.B. Gnanamoorthy 168 (1989) 83
The effect of phosphorus on microstructures of Fe–15Cr–25Ni alloys irradiated with fast neutrons, T. Muroga, F.A. Garner and J.M. McCarthy 168 (1989) 109
Evaluation of the stress corrosion resistance of cold rolled AISI Type 316 stainless steel using constant load and slow strain rate tests, H.S. Khatak, P. Muraleedharan, J.B. Gnanamoorthy, P. Rodriguez and K.A. Padmanabhan 168 (1989) 157
Microstructural studies of nitrided FV448 and FI ferritic steels ion-irradiated to 100 dpa in the Harwell VEC, D.J. Mazey, W. Hanks and T.M. Williams 168 (1989) 228
Relationship between microstructure and mechanical properties of Alloy 690 tubes for steam generators, P. Diano, A. Muggeo, J.C. Van Duysen and M. Guttmann 168 (1989) 290

Intragranular compositional oscillations in neutron-irradiated austenitic steels (Letter to the Editors), C.M. Shepherd and T.M. Williams 168 (1989) 337

Structural Materials

An attempt to improve corrosion and fatigue resistance of Ni–Cr–W superalloys in HTGR helium, H. Tsuji, T. Tsukada and H. Nakajima 168 (1989) 201

Swelling

Swelling and outgassing of tritiated lithium hydride compacts, P.C. Souers, C.L. Folkers, T. McCreary, G.D. Snider, F. Vanderhoofven, R.T. Tsugawa, J.L. Anderson, W.B. Lewis, J.E. Nasise, F.E. Pretzel, E.G. Szklarz, D.T. Vier, A. Attalla and R.C. Bowman, Jr. 168 (1989) 1

The effect of phosphorus on microstructures of Fe–15Cr–25Ni alloys irradiated with fast neutrons, T. Muroga, F.A. Garner and J.M. McCarthy 168 (1989) 109

Mechanical behavior and swelling of tube scale from a pressurized water reactor steam generator using miniature specimens, M.P. Manahan, Sr. 168 (1989) 178

Void swelling and defect cluster formation in reactor-irradiated copper, S.J. Zinkle and K. Farrell 168 (1989) 262

Thermodynamic Properties

Cation distribution and non-stoichiometry in $MnCr_2O_4$–$NiCr_2O_4$ spinel solid solutions at 1300°C, C. Karatas 168 (1989) 144

Oxygen potential, electrical conductivity and defect structure of titanium-doped uranium dioxide, T. Tsuji, T. Matsui, M. Abe and K. Naito 168 (1989) 151

Thermophysical Properties

Thermal conductivity of near-stoichiometric (U, Pu, Zr)C solid solutions, Y. Arai, T. Ohmichi, S. Fukushima and M. Handa 168 (1989) 137

Studies on the equation of state of mixed carbide fuel, M. Joseph, C.K. Mathews and P. Bhaskar Rao 168 (1989) 220

Tritium

Swelling and outgassing of tritiated lithium hydride compacts, P.C. Souers, C.L. Folkers, T. McCreary, G.D. Snider, F. Vanderhoofven, R.T. Tsugawa, J.L. Anderson, W.B. Lewis, J.E. Nasise, F.E. Pretzel, E.G. Szklarz, D.T. Vier, A. Attalla and R.C. Bowman, Jr. 168 (1989) 1

Helium bubbles in α-Ti and Ti tritide arising from tritium decay: A TEM study, T. Schober and K. Farrell 168 (1989) 171

Tritium inventory and permeation in separately cooled liquid breeder blankets, G. Gervasini and F. Reiter 168 (1989) 304

Uranium Ceramics

Formation of uranium trioxide hydrates on UO_2 fuel in air–steam mixtures near 200°C, P. Taylor, D.D. Wood, A.M. Duclos and D.G. Owen 168 (1989) 70

Determination of the oxygen coefficient for hyperstoichiometric uranium–plutonium mixed oxide by a solid-electrolyte-based coulometric technique, K. Teske, C. Nebelung, I.I. Kapshukov, L.V. Sudakov and A.S. Bevz 168 (1989) 97

Thermal conductivity of near-stoichiometric (U, Pu, Zr)C solid solutions, Y. Arai, T. Ohmichi, S. Fukushima and M. Handa 168 (1989) 137

Oxygen potential, electrical conductivity and defect structure of titanium-doped uranium dioxide, T. Tsuji, T. Matsui, M. Abe and K. Naito 168 (1989) 151

Temperature dependence of diffusivity of xenon in high dose irradiated UO_2 (Letter to the Editors), K.N.G. Kaimal, M.C. Naik and A.R. Paul 168 (1989) 188

Studies on the equation of state of mixed carbide fuel, M. Joseph, C.K. Mathews and P. Bhaskar Rao 168 (1989) 220

Electrical conductivity of polycrystalline uranium dioxide, I.T. Collier, R.N. Hampton, G.A. Saunders and A.M. Stoneham 168 (1989) 268

Fabrication of (U, Pu)N fuel pellets, Y. Arai, S. Fukushima, K. Shiozawa and M. Handa 168 (1989) 280

Void Formation

The effect of phosphorus on microstructures of Fe–15Cr–25Ni alloys irradiated with fast neutrons, T. Muroga, F.A. Garner and J.M. McCarthy 168 (1989) 109

Helium bubbles in α-Ti and Ti tritide arising from tritium decay: A TEM study, T. Schober and K. Farrell 168 (1989) 171

Microstructural studies of nitrided FV448 and FI ferritic steels ion-irradiated to 100 dpa in the Harwell VEC, D.J. Mazey, W. Hanks and T.M. Williams 168 (1989) 228

Void swelling and defect cluster formation in reactor-irradiated copper, S.J. Zinkle and K. Farrell 168 (1989) 262

Zirconium, Zirconium Alloys and Compounds

High-temperatue oxidation kinetics of Zircaloy-4 in oxygen/argon mixtures, H. Uetsuka and P. Hofmann 168 (1989) 47

Second phase particles in Zircaloy-2, X. Meng and D.O. Northwood 168 (1989) 125
Anisotropic diffusion of self-interstitials in zirconium (Letter to the Editors), J.H. Evans, A.J.E. Foreman and R.J. McElroy 168 (1989) 340
Diffusion of ^{103}Ru in zirconium (Letter to the Editors), S. Balart, R. Tendler, A. Amalric, F. Carbone and F. Gaioli 168 (1989) 346